

HAMATEUR CHATTER

The Milwaukee Radio Amateurs Club

October 2010, Volume 18, Issue 10

One of the World's Oldest Continuously Active Radio Amateur Clubs—since 1917

Presidents Letter

This is my first column of the present run where I don't have to start off discussing the passing of yet another club member. Great.

However we did lose a director and club member to other interests. Dwain KC9MJJ had resigned because it appears ham radio does not have his interest as he thought it would. I wish him well in what he does pursue. I also thank him for stepping up to be a Director last year when we needed some new people.

Well, we just had a September meeting after taking the summer off. It was a good meeting too, sorry you missed it. Area high school students who participate in the FIRST Robotics program. If we are to interest high school kids in ham radio, this is the primary group those people will come from. I urge anyone who has an opportunity to offer any support to these kids to please do so. Don't forget anyone can attend their competitions, and those are usually free. It would be great if MRAC could be a real sponsor to one of the groups, but alas, that is really beyond our current treasury capability. Something we can do is offer FREE Student membership in MRAC to any student participating in the FIRST program. If you encounter any student involved in the FIRST activities be sure to tell them of the offer. We will also offer some space in the Chatter to them to keep us informed of their activities. We have also been asked to talk to their group about amateur radio. This will happen some time in the future, and of course I'll keep you all posted.

Why did I say sorry you missed it? I still remember the average meeting

attendance of 40+ since the late 79's through the 00's. For the last 3 or 4 years we have been hovering around 20+. Is it so hard for you to bring a ham friend to a meeting (MRAC meeting, of course)?

We have meetings lined up for the remainder of the year. This month is a group promoting solar power. November (don't forget, Thanksgiving causes our meeting to move up one week) is a do-it-yourself electric vehicle. We have had a pretty good run of programs this year (and last too). Thanks to Mark AB9CD for getting most of those lined up. In the first half of 2011 look for the Auction and Show-and-Tell meetings along with some new and interesting programs we will tell you about as we get to the new year (NEW YEAR!, I'm still working the last one).

If this club is to be / do anything besides provide cheap entertainment to a small group of people on a sort of monthly basis we need people on committees doing some work (I'll refer to it as work, but for a hobby, it should not be considered as work, certainly if we are all participating it will not be). We need committees. Now I admit this is a foreign concept to many people. For many years most of the club business has been handled by just a handful of people. After a little while of that, everyone else gets used to "those people" doing all the work. Well, most of those people (who did all the work) are no longer with us. I'm not one of those people who wants to do everything. I like to delegate. I like committees. Here I'll talk about some new ones that we need operating real soon now or their events may not happen. All committees should be 2 or 3 people making decisions and setting direction with the rest of the membership jumping in to polish things up.



MRAC Officers:

Terms Expiring in 2010

- President – Dave, WB9BWP
- V-President-Vacant
- Secretary – Mike, KC9CMT
- Treasurer – Vacant
- Director – Mark, AB9CD
- Director – Dave, KA9WXN

Terms Expiring in 2011

- Director – Al, KC9IJJ
- Director – Hal, KB9OZN
- Director – Vacant

The Club Phone Number is: (414) 332-MRAC or

(414) 332- 6 7 2 2

Visit our website at:

www.w9rh.org

Mail correspondence to:

M. R. A. C.

P.O. Box 240545

Milwaukee, WI 53223

Presidents Letter Continued:

1. Field Day - Ozaukee County Historical Society needs to be contacted in January as to our use or not of Pioneer Village. That means some decisions MUST be made by mid January. I don't care what the decision is, but it must be made. This is a radio club. Field Day is a radio event. Do you do radio?

2. 95th Anniversary - January 2012 marks the 95th anniversary of the club. Should we do something or hold our big ideas until 100? Will there be a 100?

3. Classes - Anyone interested? It takes more than 1 or 2 people to set things up and teach classes.

4. Nets - One person can not be a permanent net control for 2 nets on the same day every week. Are the days and times good? Again, do you do radio?

5. Swapfest - We have the makings of a committee with Mike KC9CMT and Dave KA9WXN. They have some preliminary thoughts and maybe a location. There are a lot of other details to be worked out. Do you want to be part of that?

And of course we need a Vice President, Treasurer and now another Director.

None of the above interest you? Next month I'll talk about the existing committees (really, we have some?) and the help they need. Maybe one of those will spark your interest. If none do, then what exactly is it you want (remember, I asked a couple of months back)?

NEW DUES POLICY

New members paying dues on or after our September meeting will be considered paid in full for the following year.



Board of Director's Meeting Minutes

Meeting called to order at 7:02 PM.

Present: Mark, AB9CD, Dave DeFebo, WB9BWP, Brian, K9ICQ, Michael, KC9CMT., Dave, KA9WXN, Hal, KB9OZN, AL, KC9IJJ.

Motion to accept Meeting Minutes as published in the HamChatter Made by AL KC9IJJ, Seconded by Michael, KC9CMT. Accepted by a vote of 6-0

Treasurer Report read by Mark, AB9CD, Balance as of August 31, 2010, \$14,603.92. WB9FPR paid dues as a new member. Motion to accept treasurers report as read made by: Michael, KC9CMT, Seconded by: Hal, KB9OZN. Minutes from Treasurer accepted by a 6-0 vote.

Old Business:

Repeater Report:

Hardware installation being worked on at repeater controller site to facilitate the airing of the Rain Report.

Club Officers: Club still in need of Treasurer, Vice-President and a Director. Much discussion during this meeting regarding the restating of the clubs by-laws to facilitate the orderly appointment of club officers from the ranks of Club Directors. Dave DeFebo, WB9BWP to work on re-writing the by-laws.

2011 SwapFest: Dave Shank, KA9WXN will head committee. Channel 10/36 auction site at 126th & Townsend in Brookfield put forth by Dave as a possible site. Dates put forward of either March 19th or March 26th, 2010. Need Dave to finalize rental agreement with Employer.

Programs:

September: Program during September meeting will be on robotics, presented with demonstrations by a club of High School aged people interested in this subject. President would like to offer students from Robotics class membership at not cost to them. Board approved proposed action by a vote of 6-0. Student must be full time to meet requirement for free membership.

October: Solar Power.

November: Electric Vehicles and Hybrid Cars.

December: No meeting scheduled.

January: Operating, with contesting roundtable discussion with short presentation on FM simplex contest.

February: Open.

March: Superfest Guest?

April: Club show & tell session.

May: Club elections & Auction.

New Business:

By-Laws Change: Club Board of Directors still in the process of writing by-law changes. More on this during October Meeting.

Xmas Party: Al, KC9IJJ, worked on a sign-up sheet for the December 5th Party. Sheet will be attached to the Chatter for October Issue release.

Committees: Net Committee still needs to be established. Field day committee needs to be put together by the end of 2010 for club to have a Field day in 2011 at Pioneer village.

Board of Director's Minutes Continued:

In 2012, MRAC will be celebrating it's 95th anniversary as an organization. Charlie, KC9CEQ reports that he regularly talks to Alderman Bob Donovan & can ask him about a proclamation from the city honoring MRAC for the anniversary.

Ham Radio Classes: Technical operator class being put together for employees of the national weather service office at Sullivan. Class will be given on October 9th of 16th at WX office in Sullivan.

Motion to adjourn at 8:57 PM . Motion made by Al, KC9IJJ, Second by Hal KB9OZN. Passed without dissent by a vote of 6-0.

Room returned to condition as found upon arrival.

Respectfully submitted,
Michael, KC9CMT

Membership Meeting Minutes with Presentation summary:

Meeting called to order at 7:08 pm.

Program on robotics given by members of the More robotics club. Club was founded 20 years ago. They compete in events using robotic devices that they construct out of parts kits they are given in advance by event organizers. There are three different categories of robotics clubs: FLL, FRC & VEX. The More robotics teams are headquartered in New Hampshire with their mission being to inspire, not educate students from grade school through High school. The competitors have six weeks to build & ship their robot for competition. Every year the specifications change for the Competition.

In 2009, there were 1809 teams worldwide with 45,000 competitors. The average is 25 students per team plus their mentors. Robots are radio controlled using standard Ethernet connection Frequency of 2.4 gigahertz.

Club business meeting was called to order at 8:23 pm.

The Membership meeting minutes' from June were accepted as published in the chatter by unanimous vote.

The Treasurer's report was read by Mark, AB9CD. This will be Mark's last report to the membership. The club is in need of a new treasurer. Mark went over the financial transactions to date. The general fund started at \$14, 043.02 and ended at \$14,052.59 as of September.

A Motion was made to approve the treasurer's report by Joe, N9UX and Seconded by Dave, WB9BWP. The Club membership accepted the report via voice vote without dissenters.

Club President, Dave DeFebo, WB9BWP talked about the Weather Service Ham Class that the club will be giving to Sullivan Employees on two Saturdays, October 9th and 16th. The classes will run four hours each.

Ted, WA9RDI asked about the MAARS & MRAC cooperation agreement. Dave Shank, WA9WXN is MAARS president & has a seat on the MRAC Board.

The MAARS & MRAC groups will be sharing in some activities during 2011, such as a common picnic etc...

MAARS, meets every other month at the Greenfield Fire Station #2.

Student Free Memberships were offered to MSOE Club Members.

Dave discussed the dire need for club committees. We need a Field day Committee within the next few weeks if we are to hold a FD event in 2011.

The immediate need to change the clubs by-laws was discussed. Officers filling club positions should come from the ranks of the Board of directors, not be elected as such.

Joe, N9UX volunteered to print out by-laws for anyone without computer access. By-laws are posted on the clubs web site.

Motion was made to adjourn the meeting by Al, KC9IJJ and seconded by Michael, KC9CNT and passed by a voice vote.

Meeting was adjourned at 9:03 pm.

Submitted by: Michael, KC9CMT



Contesting News: October 2010

NB9QV USS Cobia AGSS-245

The Manitowoc Maritime Association will be sponsoring a special event station aboard the USS Cobia on: October 23rd & 24th between the hours of 1400Z & 2100Z on the Frequencies of 7.250 & 14.260 Mhz.

From the ARRL Contest Bulletin:

October 23-24

- School Club Roundup (Oct 18-22)
- FOC QSO Party--CW
- 10-10 Fall CW QSO Party
- Scandinavian YLRA Contest W/VE Islands QSO Party

VHF+ CONTESTS

Fall VHF Sprints--Phone, CW, Digital, from Oct 16, 6 AM to Oct 16, 12 PM. Bands (MHz): 902+. Exchange: 6-char grid locator. Logs due: 4 weeks. [Rules](#)

Araucaria VHF Contest--Phone, CW, from Oct 16, 0000Z to Oct 17, 1600Z. Bands (MHz): 50,144. Exchange: RS(T) and 4-char grid square. Logs due: 10 days. [Rules](#)

Iowa QSO Party--Phone, CW, Digital, from Oct 16, 1400Z to Oct 16, 2300Z. Bands (MHz): 1.8-28, 50+. Exchange: RS(T) and IA county, state/prov, or "DX". Logs due: Nov 9. [Rules](#)

New York QSO Party--Phone, CW, Digital, from Oct 16, 1400Z to Oct 17, 0200Z. Bands (MHz): 1.8-28, 50+, Frequencies: CW--1.820, 3.550, 7.050, 14.050, 21.050, 28.050; Phone--1.870, 3.825, 7.200, 14.290, 21.350, 28.400. Exchange: RS(T), NY county, state/prov, or "DX". Logs due: 14 days. [Rules](#)

Illinois QSO Party--Phone, CW, from Oct 17, 1700Z to Oct 18, 0100Z. Bands (MHz): 1.8-28, 50,144. Exchange: RS(T) and IL county or S/P/C. Logs due: Nov 18. [Rules](#)

School Club Roundup--Phone, CW, Digital, from Oct 18, 1300Z to Oct 22, 2400Z. Bands (MHz): 1.8-28, 50+. Exchange: RST, class and S/P/C. Logs due: 30 days. [Rules](#)

FOC QSO Party--CW, from Oct 23, 0000Z to Oct 23, 2359Z. Bands (MHz): 1.8-28, 50,144. Exchange: RST, name, and FOC number if member. Logs due: Oct 30. [Rules](#)

W/VE Islands QSO Party--Phone, CW, Digital, from Oct 23, 1600Z to Oct 24, 2359Z. Bands (MHz): 1.8-28, 50. Exchange: RS(T) and S/P/C or island designator. Logs due: Nov 30. [Rules](#)

Next Regular Meeting

The next meeting will be October 28th at 7:00 PM. We meet in the Fellowship Hall of Redemption Lutheran Church, 4057 N Mayfair Road. Use the south entrance.

Please do not call the church for information!

Club Nets

Please check in to our nets on Friday evenings.

Our ten meter SSB net is at **8:30 p.m. at 28.490 MHz USB.**

Our two meter FM net follows at 9:00 p.m. on our repeater at

145.390 MHz with a minus offset and a **PL of 127.3 Hz.**

You don't have to be a member of the club to join us!

Visit our website at: www.w9rh.org

Or phone (414) 332-MRAC or 332 - 6722

Chatter Deadline

The **DEADLINE** for items to be published in the **Chatter** is the 15th of each month. If you have anything (announcements, stories, articles, photos, projects) for the Chatter, please get it to me before then.

You may contact me or Submit articles and materials by e-mail at: Kc9cmt@earthlink.net

or by Post at:

Michael B. Harris

807 Nicholson RD

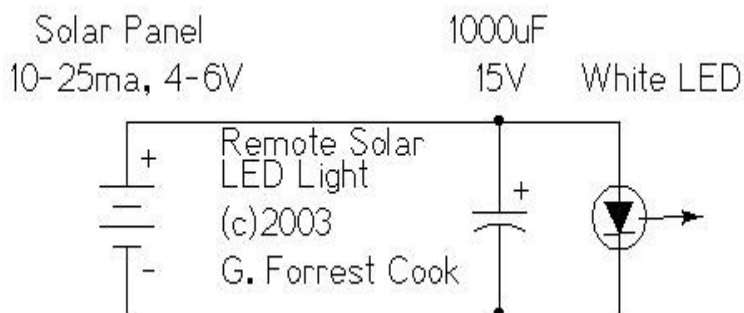
South Milwaukee, WI 53172-1447

**Club Repeater,
145.390Mhz Minus Offset
(127.3 PL)**

Experimenter's Bench

Remote Solar LED light

(C) G. Forrest Cook February 28, 2003



Introduction

I created this circuit in an attempt to make the simplest possible solar powered project. It would make for an excellent science fair project, and would also serve as a good introduction to solar powered circuitry. It may also have some practical uses, such as shedding some light into a dark part of your house. The idea is simple, the solar panel converts sunlight into a trickle of electricity. The electricity is used to run a white LED.

Specifications

Operating Voltage: 3.7V DC

Solar Current: 25ma max.

LED Lamp Operating Current: 10-25ma.

Theory

The remote solar powered LED light takes advantage of the current limited nature of solar photovoltaic cells. If light shines on the solar array, current will flow through the circuit. For a typical size of solar cell, there is a maximum current that can be produced. The maximum solar cell current is simply matched to a value of current that the LED can handle. If there is enough light to raise the solar panel's voltage above around 3.7V, the white LED will light up. The LED regulates the maximum voltage across the circuit to around 3.7V. If the solar panel that you use produces more than 20ma, it may be necessary to insert a series resistor between the LED and the solar panel to prevent the LED from burning out. A 50 ohm 1/4 watt resistor is probably about right for the job, the exact value may need to be optimized according to the solar panel that you use.

This concept could easily be expanded to systems with larger arrays of solar cells and more LEDs. The capacitor is not required, but it will keep the LED from flickering if the panel is briefly blocked, such as when a bird flies by. With 7 solar cells, the LED will only light in fairly bright light, if you use up to 10 solar cells, the circuit will work nicely in overcast skies. For an interesting modification to this circuit, replace the 1000uF capacitor with a 1 Farad/5.5V "Memory Backup Capacitor". An Elna DB-545D105 device was tested on the circuit, after charging up in the sun for a few minutes, the capacitor was able to light the LED for several minutes.

Construction

Most of the work goes into making the solar panel. Lay out the cells in any pattern. Cut the two pieces of Plexiglas and one piece of perforated circuit board so that they are wider than the solar array. Stack the three board layers together and drill holes for the mounting screws. When the project is finished, the center circuit board will be spaced away from the front and back plastic panels with extra nuts acting as spacers on the mounting screws. The idea is to get an air gap above and below the circuit board so that there is room for the solar cells and wiring.

Mount the solar cells on the perf board and solder them into a series string. An easy way to do this is to connect short segments of bare wire-wrap wire to each cell, route the wires through the perf board and solder the ends on the bottom. Connect two wires to the ends of the series string of cells and secure the wires to the circuit board. For outdoor applications, seal the edge of the panel with silicone caulk or other water proof material. Also, seal the mounting screws where they pass through the Plexiglas.

Connect the LED and capacitor in parallel, wire them across the two power leads. Be sure to get the polarity correct, otherwise the LED won't light up. Solder the parts together. Be sure to heat-sink the LED leads while soldering, LEDs can be easily destroyed with too much heat.

Use

Place the solar panel in the sun, the LED will light. The photo at the top of this page shows the circuit operating indoors on a cloudy day. If you put the LED on a long wire, it can be

placed in a dark location, such as a corner of a basement. As long as there is a fair amount of light in the sky, the LED will light up. To get the best orientation for the panel, aim it directly at the sun at noon during March or September in a location that is free from shade.

Parts

- 7-10x photovoltaic cells, rated at 15-25ma each.
- 1x white LED, high efficiency types work best.
- 1x 1000uF 15V (or greater) electrolytic capacitor.
- 1 piece of perforated or printed circuit board.
- 2 pieces of clear Plexiglas.
- 28 gauge bare wire-wrap wire.
- 24 gauge speaker wire.
- miscellaneous screws, nuts, and washers.
- silicone caulk.

Parts Sources

Jameco 1-800-831-4242 <http://www.jameco.com/>
Digi-Key 1-800-DIGIKEY <http://www.digikey.com/>
Electronix Express 1-800-972-2225 <http://www.elexp.com/>

Early Historical Developments in Amateur Radio: Vietnam Radio Club



The crew at NOEFA, (the old station) Dong Ha, about Feb, 1968.

United States Marine Corps MARS Operations In Vietnam

Early in the Vietnam war there was no such thing as a MARS operator MOS (Military Occupation Specialty) in the Marine Corps. Operators came from [infantry](#), [recon](#), tanks, artillery, motor transport, engineers, [helicopters](#), air wing and just about every other job in the Marine Corps. A few even came from communications. The one thing they had in common

was ham radio. Some had been members of their high school amateur radio clubs just a few short months before and few had the money to invest in a real store-bought radio. Many had built their own or converted old WWII military surplus radios. But the Marine Corps handed them fifty to a hundred thousand dollars worth of state-of-the-art ham radio equipment and said, "Go play".

And play they did. The Marine Corps MARS operators ran hundreds of thousands of phone calls from Marines to their loved ones back in 'The World'. Many seasoned veterans, before email or cell phones were even dreamed of, simply didn't believe it would work. There was no way some kid with a civilian radio, often under horrendous enemy fire, was going to figure out when the peak of the sunspot cycle would ionize the 'E' layer of the ionosphere, point an antenna at exactly the right spot a hundred miles out in space at the right time and reflect a high frequency radio signal off the ionized layer, over the curve of the earth into a similar station in the United States, much less hook it all up to a telephone line to their family.

But these 'kids' knew how to do exactly that. They had learned it to pass the Federal Communications Commission's test to get their licenses, some when they were 13 or 14 years old. Then they had (mostly) wished for the opportunity to own a radio to practice what they had learned.

Then, for whatever reasons, they became United States Marines. By the time they got to Vietnam, most had shelved their ham radio knowledge somewhere in the back of their minds and concentrated on doing their assigned jobs and staying alive. But by various means their talents were discovered and they were taken from their units, from combat infantrymen to cooks, and reassigned to MARS stations. Sometimes, when the signals became too weak to be 'phone patch quality', they sent and received written messages for the troops in the form of MARSGRAMS by 'CW', or Morse Code, that could blast through the interference. Another skill they had acquired to get their 'ticket'. Many had only managed to pass a 5 word per minute test to get an entry level (novice) license and some of them were now working traffic at 30 to 50 words per minute. Practice makes perfect!



ALPHA'S MIGRATION NORTH

Alpha was born at 3rd Marine Division Headquarters in Da Nang. 3rd Mar Div FWD (Forward) HQ was created in Phu Bai and N0EFJuliet was activated there. In early 1967, 3rd Mar Div moved it's HQ north to Phu Bai and Alpha was moved north with 3rd Mar Div FWD to Dong Ha, within range of the big NVA guns in North Vietnam, and the station down in Da Nang got a new call sign.

But by early 1968, the old Alpha in Dong Ha was badly damaged (more holes than walls and roof) and wounded operators and destroyed equipment were taking their toll on the phone patch count. Harry Boggs convinced the Seabees (using phone calls home and other bribes) to build a new station on the other side of the combat base. So Alpha moved north again. The new station was a beauty:



Every Marine is a rifleman first. Or a bellhop. I forget. The basic attire for a MARS operator in the field was two Samsnite suitcases (custom made to hold a Collins KWM-2A and it's power supply), an antenna and vertical mast and an M-16. I heard a few chuckles when I got off the chopper looking like this. But the chuckles stopped when N0EFA/1 was up and running patches with the KWM-2A. Nerds win again! On the portable system, a patch console wasn't used and the Marines used the microphone and listened to the speaker. Here is the system in Con Thien and there obviously wasn't much privacy.

"Our Turn in the Barrel!" Alpha at it's northern most point, as far north as it could go and still be in South Vietnam. Although full authorization was never granted for 'cross-patching', Harry Boggs considered it critical to run calls for the grunts in the field who deserved it the most. A portable station was assembled and taken to Con Thien, affectionately known as "The Meat Grinder", a few hundred meters south of the DMZ. Calls were run from Con Thien on the 'in country net' frequency and cross patched to the United States through N0EFA in Dong Ha. Barry ran over 500 patches from Con Thien in about two weeks, Christmas of '67.

War-time news and entertainment (1962-1973)

American Forces Vietnam Network was created as a morale-boosting military radio station for servicemen and women in Vietnam. AFVN broadcast 24 hours a day, seven days a week for over 10 years; it began broadcasting on August 15, 1962 and ended in March of 1973. After this, it changed its name and was run by civilians in Saigon. AFVN was a forum for news, comedy and entertainment for the soldiers during the Vietnam War. This collection includes clips from AFVN news shows, ads, advice for soldiers in Vietnam (about drinking water, VD, sending letters and packages and other such interesting blips), DJ intros, and short philosophical and morale-boosting segments.



Testing & Local Swapfests

VE Testing

Next VE Testing on November, 6th 10:30 am-12:30 am at the MRC91 Swapfest, across the street from:

Amateur Electronic Supply 5720 W. Good Hope Rd. Milwaukee, WI 53223.

Next Area Swapfest:

**** Milwaukee Repeater Club Swapfest**

Nov. 6th is the date of the **26th annual AMATEUR RADIO FEST** and you are all invited. It is at the same location as last year. 5555 W. Good Hope Road. The Elk's Lodge across from AES.

The time is from 8 AM until 2 PM.

Your contact persons will be KC9MXZ {Ken} at 414 491-0686 or WQ9B {Jackie} at 262 544-1426. The talk-in will be on the MRC repeater {146.91 Mhz. minus offset. 127.3 PL}. There will be 3 Raffle Prizes and door prizes will be given out during the event. For more information browse the website www.mrc91.org or call Ken or Jackie. Vendors are welcome at 6:00 am.

RAFFEL PRIZES ARE:

FT 250R HT

FT1900R Mono Band Mobile

FT7900R DUAL Band Mobile

Raffle Tickets are \$2.00 each or 3 for \$5.00, Admission \$6.00, Tables \$10.00, Electricity \$5.00.

Working Committees

Field Day

- Open

FM Simplex Contest

- Joe – N9UX
- Jeff-K9VS
- Dave-WA9WXN
- Brian-K9LCQ
- Sherm-KB9Q
- Mark-AB9CD

Ticket drum and drawing

- Tom – N9UFJ
- Jackie – No Call

Newsletter Editor

- Michael-KC9CMT

Webmaster

- Joe Schwartz—N9UX

Refreshments

- Michael – KC9CMT



Membership Information

The Hamateur Chatter is the newsletter of MRAC (Milwaukee Radio Amateurs' Club), a not for profit organization for the advancement of amateur radio and the maintenance of fraternalism and a high standard of conduct. MRAC Membership dues are \$17.00 per year and run on a calendar year starting January 1st. MRAC general membership meetings are normally held at 7:00PM the last Thursday of the month except for November when Thanksgiving falls on the last Thursday when the meeting moves forward 1 week to the 3rd Thursday and December, when the Christmas dinner takes the place of a regular meeting. Club Contact Information Our website address <http://www.w9rh.org>

Telephone (414) 332-MRAC (6722)

Address correspondence to:

MRAC, PO Box 070695,

Milwaukee, WI 53207-0695.

Email may be sent to: w9rh@arrl.net

Our YAHOO newsgroup:

<http://groups.yahoo.com/group/MRAC-W9RH/>

CLUB NETS:

- Our Ten Meter SSB net is Friday at 8:00PM on 28.490 MHz \pm 5 KHz USB.
- Our Two Meter FM net follows the Ten meter net at 9:00PM on our repeater at 145.390MHz - offset (PL 127.3)

Milwaukee Area Nets

Mon.8:00 PM 3.994 Tech Net

Mon.8:00 PM 146.865- ARES Walworth ARRL News Line

Mon.8:00 PM 146.445 Emergency Net

Mon.8:00 PM 146.865- ARES Net Walworth

Mon.8:45 PM 147.165- ARRL Audio News

Mon. 9:15 PM 444.125+ Waukesha ARES Net

Mon.9:00 PM 147.165- Milwaukee County ARES Net

Tue.9:00 AM 50.160 6 Mtr 2nd Shifter's Net

Tue. 7:00 PM 145.130 MAARS Trivia Net

Tue. 8:00 PM 7.035 A.F.A.R. (CW)

Wed. 8:00 PM 145.130 MAARS Amateur Radio Newsline

Wed. 9:00 PM 145.130 MAARS IRLP SwapNet w/FM-38 Repeaters (IRLP 9624)

Thur. 8:00 PM 50.160, 6 Mtr SSB Net

Thur. 9:00 PM 146.910 Computer Net

Fri. 8:30 PM 28.490 MRAC W9RH 10 Mtr Net SSB

Fri. 9:00 PM 145.390 W9RH 2 Mtr. FM Net

Sat. 9:00 PM 146.910 Saturday Night Fun Net

Sun 8:30 AM 3.985 QCWA (Chapter. 55) SSB Net

Sun 9:00 AM 145.565 X-Country Simplex Group

Sun 8:00 PM 146.91 Information Net

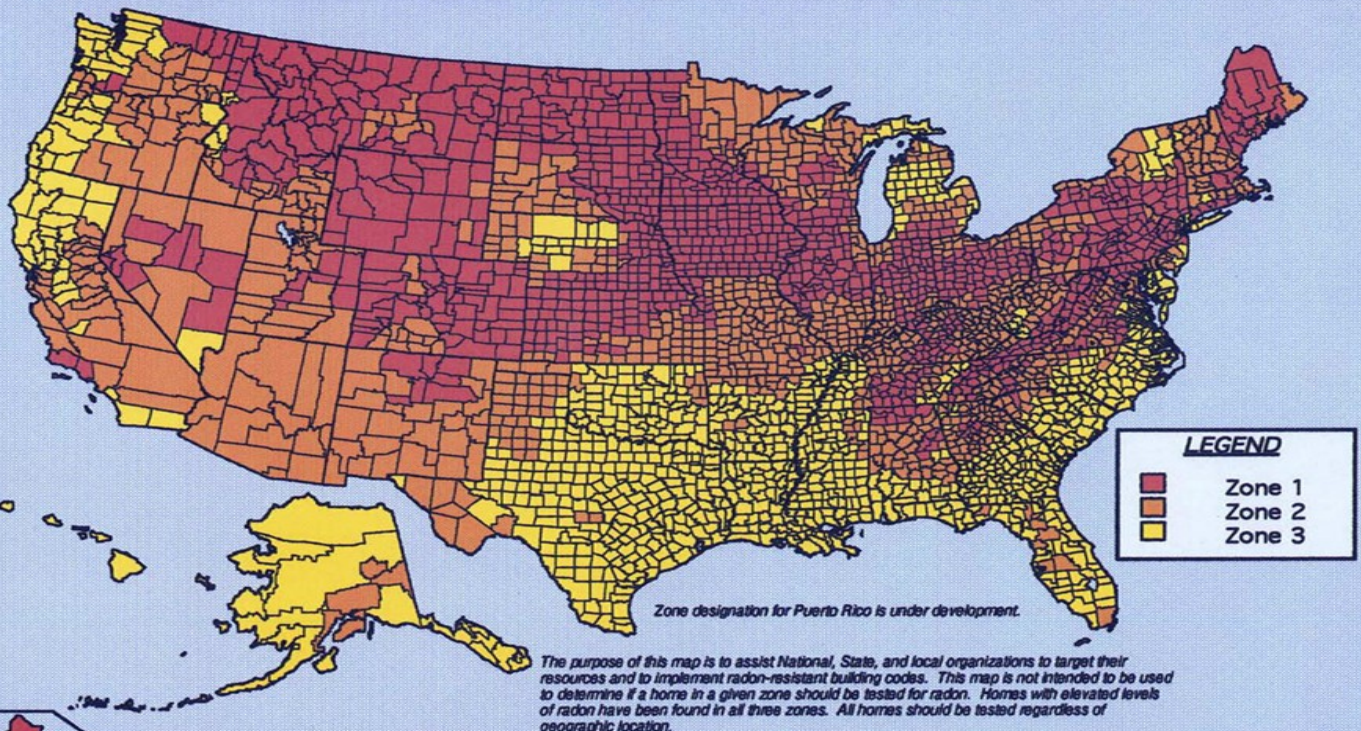
Sun 8:00 PM 28.365 10/10 International Net (SSB)

Sun 9:00 PM 146.91 Swap Net

2 meter repeaters are offset by 600KHz - - 70 centimeter repeaters are offset by 5 MHz

SSB frequencies below 20 meters are LSB and for 20 Mtr and above are USB.

EPA Map of Radon Zones



IMPORTANT: Consult the EPA Map of Radon Zones document (EPA-402-R-93-071) before using this map. This document contains information on radon potential variations within counties. EPA also recommends that this map be supplemented with any available local data in order to further understand and predict the radon potential of a specific area.

Guam - Preliminary Zone designation



MRAC - MAARS HOLIDAY PARTY & DINNER

Meyer's Restaurant & Bar

4260 S. 76th. Street

Greenfield, Wisconsin 53220

Sunday, December 5, 2010

Social Hour 4-5 pm ~ Dinner Serving at 5 pm

Tickets are \$18 and all are welcome

Reservations must be made in advance and are due by

November 28th.

PLEASE JOIN US



(Cut and enclose with payment)

To make your reservations make your check payable to: MRAC

And mail to

Al Maahs (KC9IJJ)

446 South 74th. Street

Milwaukee, WI 53214

Please list names of Guests that will be attending

Number of Guests ____ X \$18.00 = _____ amount enclosed

Need more information ? email at KC9IJJ@arrl.net